



the CARRIER.....

Published Monthly by the Mount Diablo Amateur Radio Club

MDARC FIELD DAY CALL W6CX; 2M REPEATER W6CX/R 220 REPEATER W6CX/R MEMORIAL CALL SIGN W6LGW

Volume XXIX

November 1981

No. 11

ALL THE NEWS THATS FIT

ACTIVITIES

MEETING NOTICE

This month's meeting will be held at our regular meeting place, Grace Presbyterian Church, 2100 Tice Valley Blvd., Walnut Creek, Friday Nov. 20, 8PM

SPEAKER FOR THE EVENING:

Our Veep and programme getter together Don WB6TEE, let it leak out that the program for next meeting, Friday Nov. 20, 1981 will be John Anslow WA6DPJ, Subject ATV (Amateur TV) How to send and recv. pictures. This is a must if you want to see some real fun
BETHERE

COME TO THE NEXT MEETING EARLY
AND HAVE YOUR PICTURE TAKEN FOR
THE MEMBERSHIP DIRECTORY.

Nov. 17 - Repeater Meeting - 8:00 P.M.
Grace Presbyterian Church, 2100
Tice Valley Blvd., Walnut Creek

Nov. 20 - General Meeting 8:00 P.M.

Nov. 23 - Board Meeting - 8:00 P.M.
County O.E.S. Bldg. - 50 Glacier
Dr. Martinez - Everyone Welcome

Dec. 13 - Christmas Party - Doors open
6:30 - Dinner served 7:15 P.M.
Deadline for reservations Dec. 5.
Every family bringing children
please bring gift with child's name
on it.

First Wednesday of each month R.A.C.E.S.
Qth OES Glacier Dr. Martinez 8:00 P.M.

Thursdays 7:30 P.M.
Tech Forum/Swap Net 147.66/06

Thursdays 8:30 P.M.
Contra Costa Emergency Net - 146.430 sim.

TECH FORUM/SWAP NET Contra Costa Emergency
Service Net

THURSDAYS AT 7:30 PM
ON W6CX/R 147.66/06
Thursdays - 8:30 P.M.
146.430 Simplex

SILENT KEY

Lee E. Herrenkohl

EDITOR: Dick Squires, KA6JGP P.O. Box 23222, Pleasant Hill, Calif. 94523 Phone: 686-9040

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Emergency Coordinator..	WA6OFI Dave Greenhill	188 Brown Drive, Pacheco, CA	94553 686-6657
Board Member.....	K6XC Ron Luttringer	440 Diablo Court, Martinez, CA	94553 229-3987
Board Member.....	KD6DY Joe Campbell	3215 Caravelle Ct. Walnut Creek	94598 939-6567

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Next Board Meeting at: C.C. County O.E.S. Building, 50 Glacier Dr., Martinez, Nov.23, 8 PM.

DEADLINE FOR THE NEXT ISSUE: Articles, Classified Ads, etc. by November 30, 1981

MDARC GENERAL MEETING
Oct. 16, 1981

The meeting was called to order at 8:01 by our President Bill Leopold WB6NMU.

FIRST ORDER OF BUSINESS was a short discussion pertaining to our Christmas Party. To cater or not to cater was the question? A show of hands indicated that the majority are in favor of having it catered this year, and so it will be.

M.M.S.P. that \$200.00 be allotted for education expenses.

M.M.S.P. for \$125.00 to be paid to the church for the use of the room.

M.M.S.P. for \$100.00 for CARRIER.

NOMINATION COMMITTEE CHAIRMAN Don, W6EEN, introduced those placed in nomination for 1982. Announcement was made that anyone having any change of call, address or phone number please notify Doug, W6KLM, as soon as possible.

Because of the Auction the meeting was brief and to the point, and was adjourned at 8:19.

Respectfully submitted
Dee Koester N6EJU

MDARC BOARD MEETING
Oct. 19, 1981

Qth - O.E.S. 50 Glacier Dr. Martinez

The meeting was called to order at 8:14 by our President Bill Leopold WB6NMU. Board members present were: Don WB6TEE, Dick KT6X, N6EJU, Ron K6XC, Joe KD6DY, and Dave WA6OFI. Members present were Parky K6IMV, Dick KA6JGP, Hank W6ZHY. M.M.S.P. That minutes be approved as written in the CARRIER.

AUCTION was a huge success. All worked well together.

M.M.S.P. for additional payment for CARRIER expenses as approved by the General Membership.

DIRECTORY to be printed the weekend of the 24 October.

DISCUSSION took place on the dues and the Board felt that there should be no dues increase.

Guide lines drawn up by Parky K6IMV and Hal W6CU discussed and approved by the Board. Joe KD6DY has extended his offer one more month to provide storage space for club property. So far storage place has remained empty.

Vice President Don WB6TEE, said that our November Meeting would be on FSTV. John WA6OPJ will present the program. TREASURER Dick KT6X, reports \$1,664.78 in savings and \$181.00 in checking. EMERGENCY COORDINATOR Dave WA6OFI, said that the S.E.T. went off at about 5 PM. Critique is planned for Wednesday Oct. 21. W6LGW license renewed and ready to be hung in place. CARRIER EDITOR Dick KA6JGP. Discussion took place on joining "HANDY HAMS" M.M.S.P. that the Board has authorized Christmas Party Chairperson not to exceed \$2.00 per person. Frank N6GQ to be notified about Silent Key Plaque. Meeting adjourned at 10:36 PM.

Respectfully submitted
Dee Koester N6EJU

SPECIAL BOARD MEETING
Nov. 2, 1981

Meeting called to order by our President Bill Leopold WB6NMU, at 8:00 PM. Board members present were, Dick KT6X, Dave WA6OFI, Joe KD6DY, and Bill WB6NMU. Members present, Parky K6IMV, Nancy KA6IZI.

M.M.S.P. to accept the nominees for Repeater group as presented.

Silent Key: Lee E. Herrenkohl, was announced by Bill WB6NMU. Sympathy card to be sent to the family.

FOR SALE:

HEWLETT PACK. Model # 712B (home built)
0 to 500 DC @ 200 MA
-300 DC @ 50 MA
0 to 150 DC @ 5 MA Rack mount Appr.
40 lb. \$50.00
Dave Lank- 671-0516

FOR SALE:

Good starter unit, DRAKE 2B Recvr with Spkr and Q multiplier Rick
Call at 754-1610

FOR SALE:

TA-33 3 element beam antenna w/40 meter boom. Never been up \$175.
CDE control and rotator W/cable \$75.
Smith-Corona portable typewriter \$25.
3 Honda Trail 90 bikes. Make offers.
KA6JGP 686-9040 evenings

FOR SALE:

APTRON ATV Transciever, 48 element
432 Mhz Antenna
Call Don W6NKF 930-8628

The President's Corner....

HI!

In case you missed it I'm going to tell you how terrific last months auction was. As expected, Peter K06R, kept the pace fast and furious, the laughter louder and long and the bidders totally confused. He did a great job. Personally I believe he missed his calling as an entertainer. Also to be praised are Hank KA6B, and Don WB6VHW. Both stepped in as relief auctioneers. Don our Vice President master-minded the whole affair, so naturally everything worked smoothly. And also a great big THANKS to the others who helped make it one great night.

In this months CARRIER you'll find your ballot. USE IT!

This year the number of people that can attend the Christmas party will be limited, due to the size of the room. Reservations will be taken on a FIRST COME, FIRST SERVED basis. So get yours into to Dee N6EJU, as early as possible.

One of the biggest headaches which goes along with the responsibilities of this office is managing (blackmailing, threatening, bribing) to get volunteers to chair various committees. Now I understand that not everyone has the juggling abilities or multiple talents of one such as Dick Squires, who can edit a Newspaper while relating to the public, but I do believe there is much untapped talent out there. If you'd like to get involved more, maybe not as a chairperson, in our club you won't regret it and you'll have an awful lot of FUN. Please step forward and do more than pay your \$10.00 dues. REMEMBER, THIS IS YOUR CLUB!

P.S. don't throw your cigarette butts on the ground outside the meeting. The Church doesn't like it and I end up picking them up.

73 Bill WB6NMU

Did you know that your Editor has three cards that are either being used or proposed for use by our members.

Van WA6ZFFZ, was first to send in his idea of a card, also we have Dwayne, W6LKE and Dave WA6OFI on file with their cards. Next issue these and any others that fit will be printed. Maybe someone will think the idea, good enough to do something about it!

PHRANK'S PHILOSOPHY

Do you ever get feelings or premonitions about the future? Here are some I have.

Drinking water will become more valuable than oil and great pipelines will be run around countries to carry water instead of oil.

All the human remnants on earth will become one race and speak one language.

The American penny coin will become ten times more valuable in the near future.

Mexico will become a major world power.

The average world life expectancy will tend to decrease at some point as pollution becomes more of a problem.

Wars on earth will cease.

Infants will start to school at six months.

We will have one appliance in our small homes that will speak to us and take the place of TV, phone, computer, clocks, checkbooks, games, doorbell, alarms, thermostat, radio, stereo, library, and doctors office visit.

Frank Thornburgh
WA6GYR

LETTER TO THE EDITOR:

Dear Editor;

In some recent correspondence with BIP, W6BIP, he mentioned some good information regarding telephone RFI.

If you are having interference, give a call to repair service. They will put capacitors and or filters on the phone line.

If after the Pacific Telephone service-man works on the lines and you still have RFI write (not telephone) to L.O. Neison, W6GHW, (Pacific Telephone employee) and he will order at no charge a telephone without varistors.

Chapter 15 page 16 of the 1981 ARRL Handbook tells the whole story.

The address for Mr. Neison is:

L.O. Neison
Engineering Staff Manager
Headquarters Engineering
Pacific Telephone
140 New Montgomery St. Room 329
San Francisco, CA 94105

73 Jim WA6CEP

Did you know that the club has the same Box number but the new zip code is 945230222 GAD!

THE SOUTHERN CHAPTER..... news from down south

The recent ARRL Southwestern Division Convention held in Scottsdale, Arizona was attended by a number of Southern California Hams and Southern Chapter members in particular. Bill Jackson, W6HDP, a Southern Chapter member who lives in the Scottsdale area was one of the lucky one's who found his way to the festivities at the Ramada Safari Hotel. He reports that the hamfest was a huge success. Some highlights of the convention were: hourly bus trips to the home and ham shack of Senator Barry Goldwater, K7UGA. Each visitor received a personally autographed QSL card from the local Radio Club, of which Barry is President. On Saturday evening a western steak barbecue was served under the stars to the over 600 persons in attendance. K7UGA was the principal speaker. Harry Dannals, LO2HD, President of the ARRL also spoke concerning the future of the League and Amateur Radio.

Those making the trip to the shack of K7UGA, WA7UGA (the Club call), and AFC6BG (the MARS Call) were treated to a peek not only at a well equipped station highlighted by Collins gear but a great antenna farm which includes a long boom log periodic array, stacked monobanders and a "Hi Gain" hi tower. Thanks to W6HDP for providing this information.

On other subjects, senior son Chris is still awaiting his KA6- - - call from the F.C.C. Keep watching this column and you'll get a pretty good idea of how long license processing is taking back in Gettysburg these days.

Bob Johnson our resident Southern Chapter member in Hayden Lake, Idaho recently upgraded to Advanced and swapped his former N6DZU call for KC7IA. Bob thinks it's time for he, Dale (KB7UB) and Joe (WA6PUA) to bail out of the Southern Chapter and form a North-Western area Chapter. Great idea Bob- just remember if you do one of you three will have to write a monthly column.

New Southern Chapter member Charlie, N6ARU, recently spent some time in the North country. What started out as a hunting trip ended up prematurely due to some accidents in the family. Hope everyone is recovering Charlie. He did find time to attend the MDARC October General meeting and dined with K6IMV, KD6UA and families at Pipers prior to the meeting. Tom, did Parky make you pay again?

Well, that's all for this month.
See you all down the log.

'73 Jerry WA6CUP

THINGS YOU ALWAYS WANTED TO KNOW, BUT
WERE AFRAID TO ASK!

How come the Postal Service has to be turned down three times on postal rate increases before they can go ahead and raise them anyway? The Mouse eats the cat?

Is there anyone else as dumb as your Editor, who spent \$13.27 to subscribe to a "NEWS BULLITON" called the CCC Museletter?

In his search for Ham News, the Mail Box is filled with good to excellent material as is his home box-BUT!

To get a missile like the above mentioned "RAG" that is loaded with nothing but superfluous verbiage, month after month, and then check to make sure the editor of it (WD6GKF) even had enough gall to cash your subscription check. Shakes your faith in the fellow club members that recommended it to you.

Finally, as our only suggestion on ways to improve this total insult to the word "Journalism;" would be to request it be printed with non-toxic ink on squeezy Charmin, so it could be put to some use.

With all the push, to buy brand "A" or brand "B" to "Z" TV sets predicated on their "better" picture year after year; why don't they do something about the sub-sub standard of Audio?

The Audio portion is FM, what's the matter with FM-Stereo? and while your at it why not make the cabinet so that the tube fits in the corner of the room with speakers and other audio components on both sides. This would give a better viewing projection of 90 degrees to show over the entire area, without blind spots and the acoustics (especially in stereo) would be unbelievable.

Why don't you hurry up and send your check in for next years dues-NOW?

The fun, in part, is seeing how low a membership number you can get as these are issued in accordance with, how they are paid, low number, early supporter.

DO IT NOW!!!

Did you know that Joe KD6DY, in one shot, in the mail, got his, worked all Continents, worked all States, and his SXCC! (Motormouth) I hear he was vaccinated with a phono-needle.

HR - REPORT TELLS US THAT:

BOB STANKUS (KESWICK SALES) pleaded not guilty to 22 counts of mail fraud at his first appearance before the judge on July 6. After some discussion between the lawyers, however, he changed his plea to guilty on 11 of the 22 counts in return for having the other 11 charges dropped. The court is awaiting a probation report on Stankus, and after it is received he'll be sentenced for his part in the "bargain" TS-520S mail-order sale scheme.

A TWO-DAY AMATEUR LICENSE SEMINAR sponsored by Tufts Electronics last week-end featured the controversial publisher of FCC exam questions and answers, Dick Bash. The Saturday cram session was on Element 3(Tech/General). Element 4A (Advanced) was covered on Sunday. The one-day fee was \$95, \$175 for both days.

Without knowing of Bash's Connection with the cram session, the FCC's Boston Field Office agreed to hold a special exam for course participants. 55 of the 57 who attended the session passed their exams.

AVANTI HAS BEEN SOLD TO Antenna Specialists, effective September 1, and will be moved to Cleveland. All Avanti Communications antennas, including the "through-the-glass" mobile models, will become part of AS's line, though with present model numbers.

SEVERAL ALLEGED WEST COAST JAMMERS are rumored to have received a letter from Rick Cooper, Communications Attorney's Service, that offers free legal aid if they're caught and prosecuted. Cooper, disappeared after the law got after him.

SENATOR GOLDWATER'S PRO-AMATEUR RADIO BILL was passed by the Senate September 25 by unanimous consent. This important legislation, S.929, would affect not only the Amateur Service but also CB and radio control licensees as well as the electronics manufacturing industry.

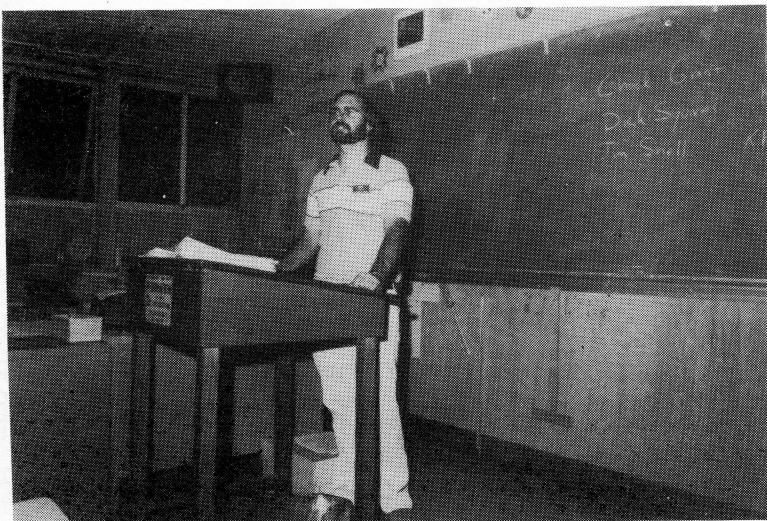
Did you know, that 1,000 shares of Radio Shack (Tandy) stock at \$15.00 a share in 1967, is worth 2.35 Million today!!

W5YI REPORT - Dits and Bits

The Japanese maker (Sharp) of the TRS-80 Pocket Computer is now marketing the pocket computer under their own name at \$199. Radio Shack's contractual agreement with Sharp has expired and the \$249.95 price became \$229.95 in their 1982 catalog. Now that Sharp is marketing the unit at \$199, Radio Shack has dropped the price permanently to \$169.95. In other Radio Shack news. Tandy has realigned its retail computer marketing team with a top management shuffle at its Fort Worth headquarters. Tandy also in process of buying consumer products division of Memorex which could get Radio Shack in the video tape business fast ... not to mention floppy disks and other products!

Rep. Henry Waxman (D-Calif.) and House Telecommunications Subcommittee Chairman Timothy Wirth (D-Colo.) have introduced legislation into Congress that asks penalties up to \$50,000 for "unauthorized reception of pay television distributed by satellite or broadcast to homes by subscription television (STV) and multi-point distribution service (MDS)." The bill was sought by the Motion Picture Association of America, National Association of MDS Service Companies (NAMSCO) National Cable Television Association and several pay TV programmers. Waxman received a standing ovation at the recently held NAMSCO convention. At the same convention, Assistant U.S. District Attorney Dan Kamin said to attendees, "Your own worst enemy in this problem is the FCC. How do you think I feel when a pirate tells me he has tapes of the FCC saying they think (piracy) is legal." Home Box Office (a pay TV movie service) said that they were taking at least one backyard satellite earth station owner to court to settle once and for all whether such private reception is legal.

Food for Thought! In 1946 there were just ten thousand television sets in the U.S.; by 1952 (six years later) there were almost 16 million sets. Today there are 10,000 TVROs (earth stations receiving satellite transmissions). How many people will have satellite receiving capability in the next six years? Experts predict a big boom in DBS. (Direct Broadcast Satellites) COMSAT has applied for a high power public DBS service. An American DBS system within 6 years is almost a certainty.



IT'S IN THE BOOK!

CHUCK

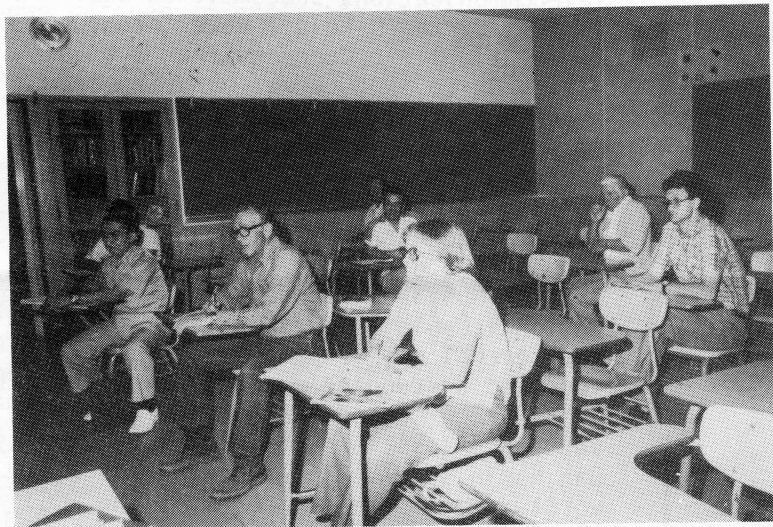
Scenes from the College Park High
Ham classes of 1981. Teachers are;

Chuck Grant KB6UY

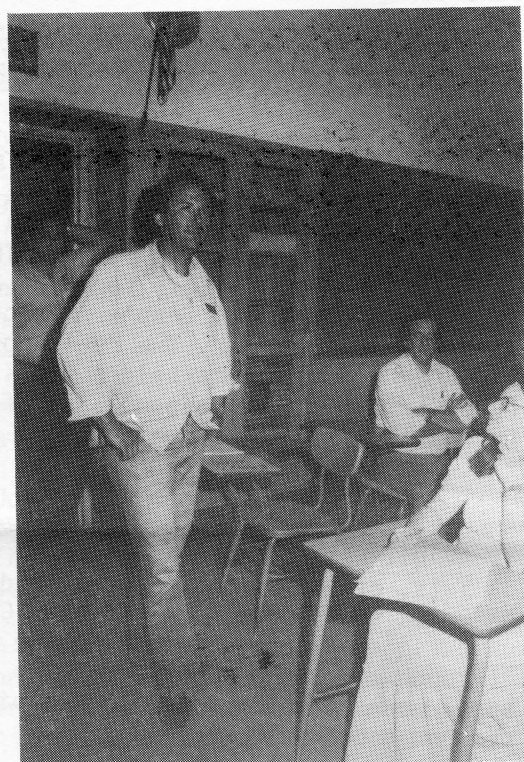
Jim Snell KA6PKA

Kick Kecso NA6Q

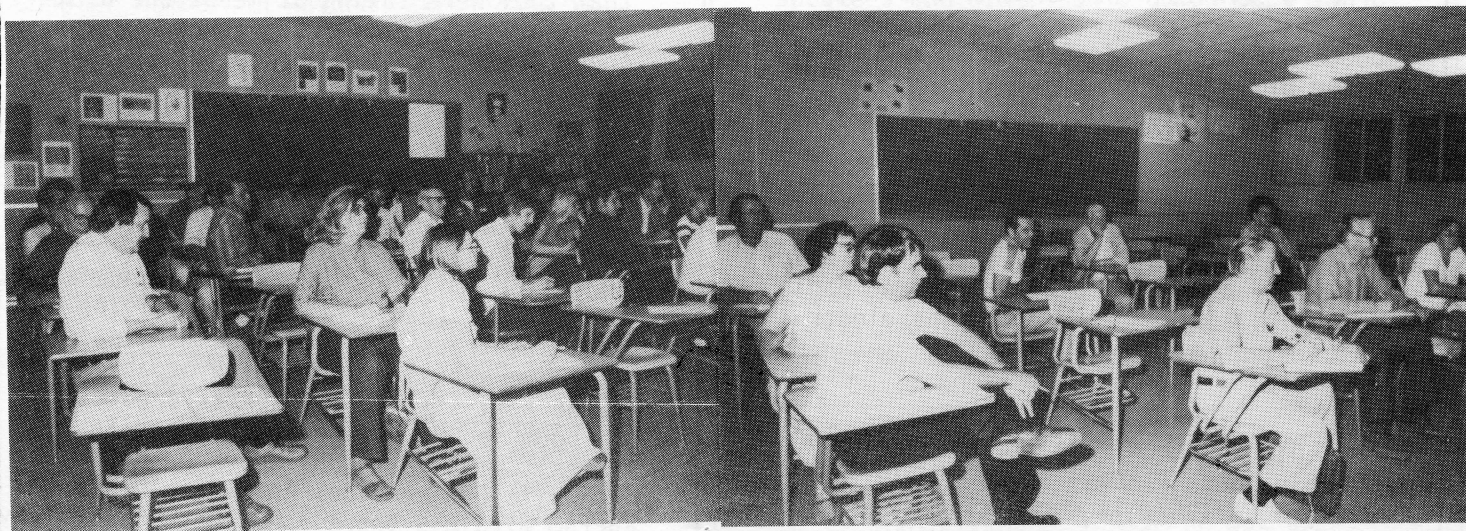
Jay Caldis KT6Y



MANY LISTENED AND STUDIED WITH TOTAL
EFFORT AND DESIRE

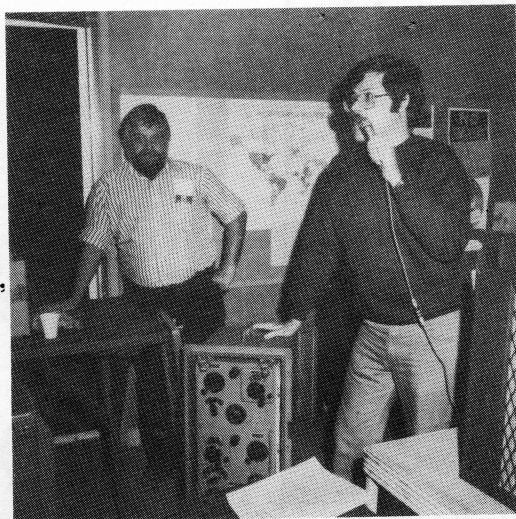


AND SOME JUST HUNG AROUND
BILL



AUCTION

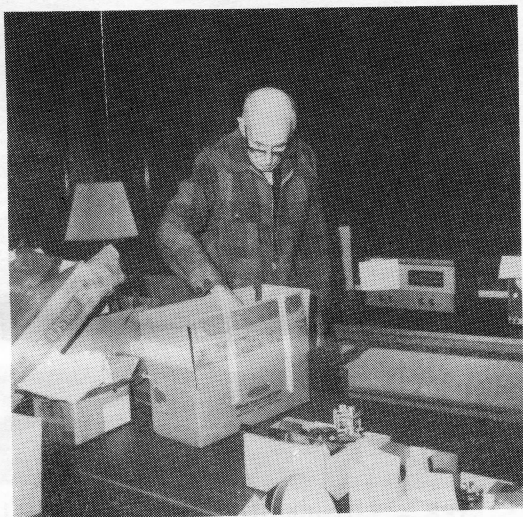
OUR THREE AUCTIONEERS,
PETER K06R
DON WB6VHW
HANK KA6B



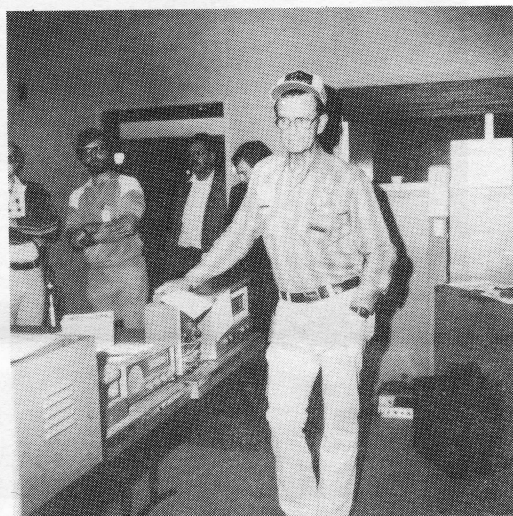
PETER AND HIS SENIOR TECHNICIAN



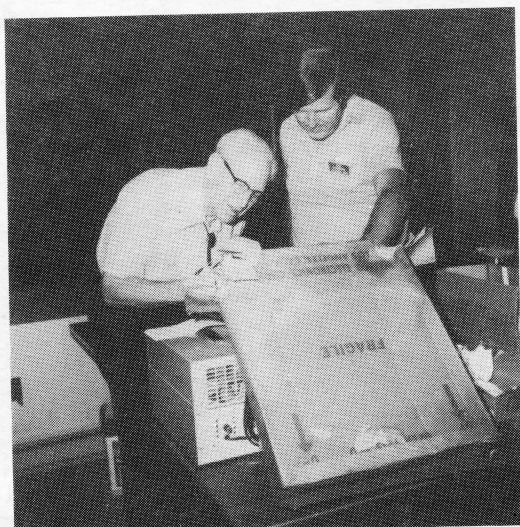
WHO SAID FIFTY CENTS



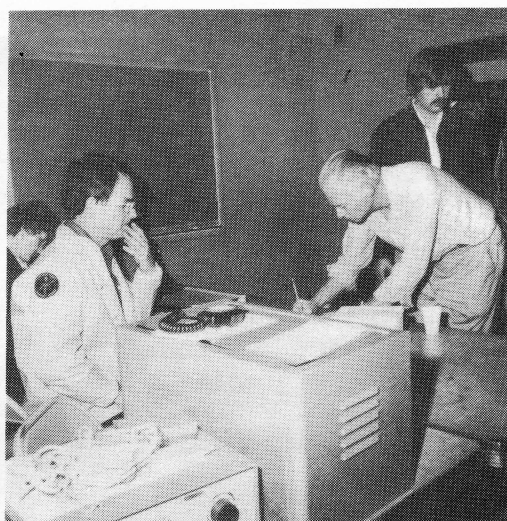
LOOKING FOR A SPARK COIL



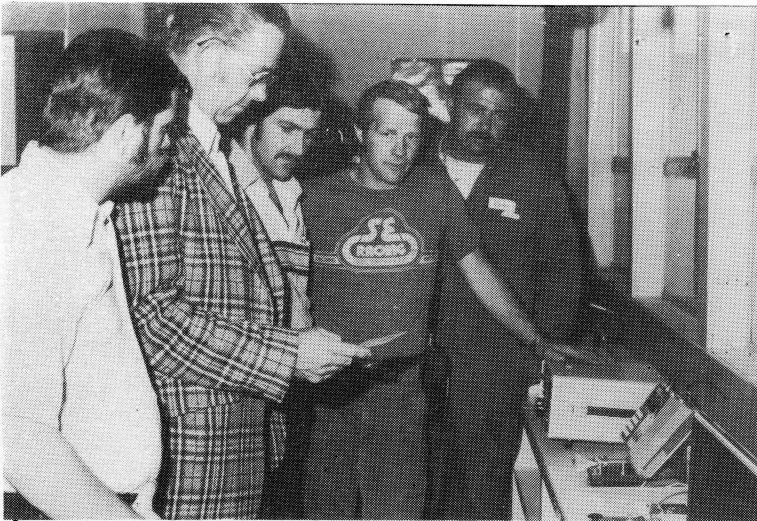
HOW THE HELL CAN I WRITE THIS UP?



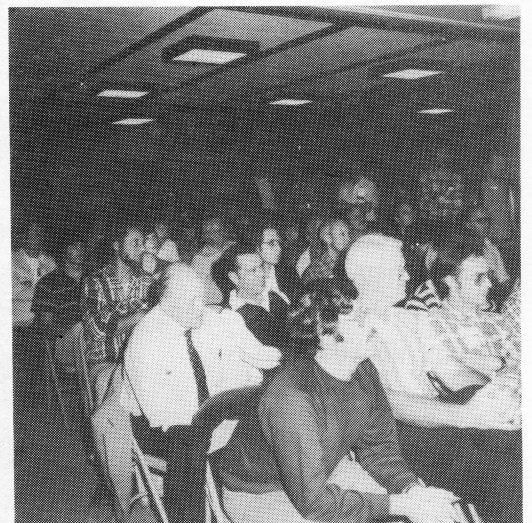
I SAW IT FIRST!



SORRY - NO CHECKS OR MASTER CHARGE



DIG THE CRAZY SPECS ON THIS



THE FLASH BOUNCES OFF SILVER DOMES



FIFTY CENTS HAS ALREADY BEEN BID



YES - I'M HOLDING THIS DOWN TILL
I CAN BORROW FIVE BUCKS MORE
JIM KA6PKA



PLEASE - NO SHOPLIFTING



MAN WHAT I COULD DO WITH THIS

TECHNICAL CORNER

Jim Lisson WA2CEP

DISISTORTION AND POWER LEVELS

When ever I read an ad for a linear amplifier the first thing I see in large print is "2KW PEP". I guess that how they rate their product depends on what "Hat" they are wearing.

In the "Sales Department" they want to tell us how it can run "2KW PEP". In the "Engineering Department" they will look at the plate dissipation and the IMD figures of the tube manufacturer. However, the FCC will look at the distortion products as the equipment is used on the air.

A RF linear amplifier, or any other "linear" circuit, is linear in name only. Some are more linear than others, but all generate distortion products. In RF linear amplifiers we will look at something called "Intermodulation Distortion". I.M.D.

In order to generate IMD we must have two or more RF frequencies interacting. This could be a voice waveform but the best way to understand and measure IMD is with only two RF frequencies. This is called the "Two Tone" method. They could be two audio frequencies fed into the mic input of a SSB generator and thus resulting in two R.F. frequencies out, or two R.F. signal generators could be used. How the "Two Tones" (frequencies) are generated is unimportant, just as long as they are "pure". That is; free of hum, FM, harmonics etc. They also must be of equal amplitude.

With the two R.F. frequencies going into the amplifier under test there should be only two RF frequencies out. However in a practical amplifier there will be many more. The desire is that the IMD products will be of such a low power level compared with the two desired frequencies that they cannot be heard. The power level of the IMD products is measured in-DB relative to the power level of one of the two equal tones. Some companies and the A.R.R.L. measure relative to the PEP of the signal. That will just add - 6 DB to all numbers. This is not "wrong" but check for this when comparing IMD ratings.

The new RF frequencies are spaced on each side of the two desired frequencies by incremental frequencies equal to the frequency spacing of the two test frequencies. The power level

is also weaker the further away from the two tones we move, untill we severely overdrive the amplifier. The formula for the new "side frequencies" (IMD) products) is: $NF_1 \pm MF_2$ where N and M = 1, 2, 3 etc, and F_1 and F_2 = the two test frequencies.

Example:

Given; $F_1 = 1000$ KHz and $F_2 = 1001$ KHz
 order $NF_1 \pm MF_2$ = IMD frequencies in KHz
 2nd $1F_1 \pm 1F_2 = 1$ 2001
 3rd $1F_1 \pm 2F_2 =$ 1002 3002
 3rd $2F_1 \pm 1F_2 =$ 999 3001
 4th $2F_1 \pm 2F_2 = 2$ 4002
 4th $1F_1 \pm 3F_2 =$ 2003 4003
 4th $3F_1 \pm 1F_2 =$ 2999 4001
 5th $2F_1 \pm 3F_2 =$ 1003 5003
 5th $3F_1 \pm 2F_2 =$ 998 5002
 6th $3F_1 \pm 3F_2 = 3$ 6003

Listed above are the first few IMD products resulting from 1000KHz AND 1001KHz. We can see how most are far removed from the desired output frequency of ≈ 1000 KHz and simple LC circuits will remove them. Four of the above will be in the output along with the two we want and these are what we are going to measure. They are spaced in 1 KHz increments from F_1 and F_2 because $F_2 - F_1 = 1$ KHz. The four we are concerned with are called the "odd order" IMD products. If we add the M and N numbers in each equation above and the result is even like 2, 4, 6 etc. then the frequencies resulting are even order IMD products and with RF frequencies they will be far removed in frequency from the desired output. When the sum of M and N is odd like 3, 5, 7 etc, then the frequencies resulting are odd order IMD products and with RF frequencies some will be close in to the desired output frequencies and will result in a distorted output. The first set of frequencies up and down from F_1 and F_2 are the 3rd order, next is the 5th order and then come the 7th order. Note that the IMD products go much higher than the 6th that I have shown and if F_1 and F_2 are close, say only 100HZ or so apart we can generate a lot of IMD products within the passband of a SSB rig. The Hand Book shows spectrum monitor pictures of IMD products.

Let us look at the "two equal tones" for a moment. If each frequency represents a input power of 500 W then the DC input is 2X500 or 1000 watts. Because they are on slightly different frequencies one of them is constantly changing phase relative to the other. Therefore from time to time, how often depends on the difference frequency ($F_1 - F_2$), they

Tech. (cont'd)

will be in step with each other for ever so brief an instant. At that point in time the voltage ($V_1 + V_2$) will double. If the voltage is doubled the power goes up by a factor of four. So if V_1 or $V_2 = 500$ watts each then $2 V_{1 \text{ or } 2} = 2000$ watts P.E.P. P.E.P. = R.M.S. power at the peak of the envelope.

The P.E.P. waveform is displayed on a regular scope, volts vrs time, The two tones and the I.M.D. products are displayed on a spectrum monitor, volts (Power) vrs frequency.

So far we have been looking at just two frequencies, If we had used five equal tones then the I.M.D. products would have been very complicated and also the average power would have been $1/5$ of the P.E.P. From this we can see that if we use voice (many "tones") then with only a few watts of "meter power" we can run very many K.W. of P.E.P. and this may be more PEP than the tube/circuit can run at low IMD levels. The IMD products increase faster than the desired output.

An interesting extension of this is the 3rd order intercept point. Some circuits, like receivers, can be rated in terms of the power level of two input frequencies such that the 3rd order IMD product equals the input power. This level gives some indication of how good the circuit is at lower input powers.

If you think that 2KW is a lot of power think back to the old "AM" days. Then we could run a KW-AM and that means four KW PEP - within the low!

Jim WA2CEP

Why does the Editor, feel warm all over, when he spots a direct quote from the "CARRIER"? This happened in the Fresno A.R.C. paper "SKIP" when the "Technical Corner", by our own Jim WA2CEP, was printed in full along with some other NEWSY stuff. Proves that someone reads this!

Why, so many Government forms, for survey's?

One, sent out recently to certain business practices, asked the question; "How many employees do you have? Broken down by sex"

A New Jersey firm answered: "very few. Liquor is more of a problem here".

ComputerLand®

ComputerLand®

ComputerLand®

ComputerLand®

ComputerLand®

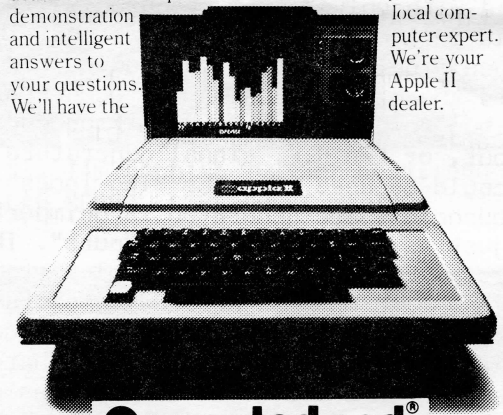
How to buy a personal computer.

There's only one smart place to buy a personal computer: from your local computer expert.

Look to your Apple® II dealer for efficient product demonstration and intelligent answers to your questions. We'll have the

software and peripherals you want in stock. And we'll be on hand when you need advice and service after the sale.

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See Russ-KA6BPN

Don WB6TEE, says: I just cant think of words to use to thank the many who helped make the Auction such a success. The club netted \$175.50. Peter K06R greased the wheel and everything slid thru. One real odd thing tho, with keeping track of the money by Ginnie WA6ZGJ, everything balanced to the penny. Dick our Treasurer KT6X, is still in shock!

The new amateur rules (part 97.84a) are now in effect and there seems to be a lot of confusion as to just what is legal and what isn't. We covered this in depth in our last issue, but...again: you only have to ID giving only your own call sign at the end of a communication or every ten minutes which ever comes first. A communication is defined as a series of transmissions. That means that you can carry on a conversation for 9 minutes and some seconds without identifying your station - just as long as you ID at the ten minute level or at the end

of your QSO. (New ID rules took effect October 23rd. FCC PR Docket 80-136)

Most amateurs, however, will continue to ID the way they have done for years, at the beginning and ending of a communication, at which contact is made. Mortals are creatures of habit and seem to follow examples rather than rules. (Back in 1975, the FCC relaxed the rule which required you identify portable and mobile operation and the radio district you are in. Most amateurs still do it.)

If you haven't heard of the "Josephson Junction" it won't be long before you will! In computers, it is switching action that manipulates the ones and zeros. The first computers used mechanical relays. Vacuum tubes were used as electronic switches in 1946 for ENIAC. Transistors were developed in the early fifties and used less current, produced less heat and could switch on and off very fast! integrated circuits came along, were very small and low cost but their switching speed was still limited by heat. The Josephson Junction is a miniature electronic switch that is kept extremely cold - near absolute zero. Computers using Josephson Junctions are much smaller (since they can be spaced closer together) and can operate at speeds of up to 30 times present day integrated circuits.

REACT International, the CB group, isn't too happy about Congressional action aimed at eliminating CB licenses. They want President Reagan to establish a "CB user fee" with money going to fund "administration, education and enforcement of CB rules" and to retain the CB license. REACT's Gerald Reese said eliminating CB licensing is "tantamount to tearing up the rule book." Congress and the FCC disagree.

Another Petition for Rulemaking has been received by the FCC calling for the addition of 26 sideband only CB channels in the 27.41-27.54 MHz band and for reconsideration of the FCC proposed 900 MHz personal radio service. Personal Radio Operators International Federation of Vista, California, suggests creation of a "basic personal service" of 130 channels in the 220-MHz band and establishment of an advanced service at 900-MHz. The 220-MHz proposal is sure to be opposed by the ham community since the service would not be an amateur one and amateur spectrum is proposed. The FCC is still considering another suggestion for 220-MHz. The ARRL's (RM-3314) proposes to allow Novice amateur radio operators voice privileges (both AM and FM in addition to CW on 220.

With the thousands of dollars spent on TV advertising, have you noticed so often on Cable TV, when a station is coming from out of town, they praise their product and price and close with: "we're across from 'Marys Place' or next to 'Sam's Joint' on Main Street, and they don't say what town!

THE EYEBANK NET'S 10,000th eye was passed on to a recipient last week. The group's work with the eyebank program in coordinating donor eyes with recipients throughout the U.S. began in late 1962 when WØGET, an Iowa physician, was unable using long distance telephone to locate an eye for a patient. The first Eyebank Net met December 22, 1962, with only seven stations. Now over 150 are active in its daily morning and evening nets on 3790 and 7294 kHz. Congratulations on an important milestone!

Apparently the Heath Company and parent company Zenith aren't on speaking terms! The Heath Company is well aware of RFI problems and has taken effective action in the past to deal with the problem of interference. The following are the comments of the Zenith Radio Corporation (who apparently have their "heads in the sand") on FCC Docket 78-369. (Quote) "Zenith believes that the vast majority of consumer electronic home equipment products are affected only infrequently and insignificantly, if at all, by radio frequency interference. Everything that Zenith has learned from the marketplace with respect to RF interference and its impact on consumer electronic entertainment products is consistent with the conclusion that neither the incidence nor the severity of the problem warrants the imposition of regulatory measures." (End Quote)

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Thanks Ed

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Why do some members complain about the cost of this Christmas Dinner when we see that some clubs are charging \$9.50 and *14.50 per person per dinner?

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By the way seats are limited by capacity law, first come, first gets!
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If you would rather pay *14.50, contact the Editor, he has the applications.

The Associated Press reports that the U.S. Circuit Court of Appeals in San Francisco ruled that manufacturers and retailers of home video recorders are liable for damages if the recorders are used (even by private individuals) to tape-record copyrighted television programs! Almost all TV programs are copyrighted. Affected by the ruling are thousands of individuals who own video recorders. The court said an acceptable resolution of the problem might be for video recorder makers to pay continuing royalties to copyright holders.

THEY CALL ME APATHETIC
BUT, I DON'T CARE
WA6ZFZ

How much is an "S-Unit"? There seems to be a difference of opinion on this. The ARRL Radio Amateurs Handbook says, "No particular standard has been adopted by the industry an S meter is a relative-reading instrument on most amateur receivers. However, during World War II at least one receiver manufacturer used 50 microvolts for S-9 and each S unit below S9 was supposed to be equivalent to 6 dB." Well that WWII maker was pretty much on target! At the May 1981 conference of IARU (International Amateur Radio Union) Region 1, the region recommendations for S-meter standards are:

1. Each S-point is a level difference of 6dB.
2. Below 30-MHz S-9 equals 50 microvolts across 50 ohms.
3. Above 30-MHz S-9 equals 5 microvolts across ohms. (Thanks VE7BS)

50

VOTE

VOTE

VOTE

Your ballot is here, use it, be a part of who our next year will be run by! Candidates are as follows:

President:	Dick Brown KT5X
	Jerry Boyd WA6CUP
Vice President	Don Peattie WB6TEE
	Dick Squires KA6JGP
Secretary	Dee Koester N6EJU
	Mak King WB6EKT
Treasurer	Nancy Hodgson KA6IZI
	Joe Gregory WA6DQN
Emergency Coordinator	Dave Greenhill WA6OFI
	Larry Kaye W6CPO
Board member	Jim Snell KA6PKA
	Don Bertrand N6EEQ

What happens when FCC issues the Novice call of KZ6ZZZ, what will be the next call?

Seems that it's set up for future calls in Novice band to go: KA - KZ - then WA - WZ - for a combination of nine million Novice calls.

Extra's set up for 100,000, Advance, Gen/Tech will have 500,000 each combo's.

Guess we won't worry about it too much, today anyway.

Did you know, according to W5YI, that the world record for receiving the Morse code by ear is held by Ted McElroy, ex W1JYN.

He copied 75.2 WPM on a typewriter on July 2, 1939. That record has held up for 40 years! ANYBODY CARE TO CHALLENGE?

THOSE OF YOU WHO
THINK YOU KNOW IT ALL
ARE PARTICULARLY ANNOYING
TO THOSE OF US WHO DO
KA6IMV

Participants, Simulated Emergency Test, as recorded by personnel recruitment/assignment Net Control on W6CX/RPT, October 17, 1981, Approximately 4:30PM PDT and thereafter.

WB6AED	N6EJU	KE6II	K6MFV
K6POU	KD6YA	WA6ZFZ	K6BNQ
KC7FD/6	K6IMV	WA6MWU	K06R
K6VT	WD6CVH	KE6BS	WD6GDG
KA6IVF	WB6TEE	N6WG	W6CPO
K10CD/6	N6GQ	WB6JGV	WA6OJT
K6UGS	KB6WU	WA6DQN	WA6GYR
W6KLM	WA6OFI	WB6UMT	KT6X
N6DT	WA6HAM	W6LKE	KB6OH
KB6UX	KT6Y		

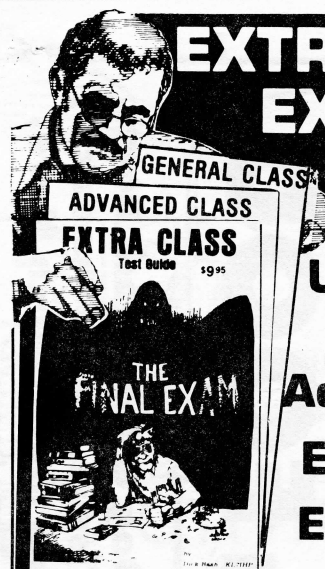
Assignments, as made/recorded by personnel Recruitment Net Control, W5CX/RPT S.E.T. October 17, 1981

WA6OFI - Emergency Coordinator
 W6LKE - Father of us all
 WA6ZFZ - OES, Martinez
 N6EJU - OES, Martinez
 WA6GYR - OES, Martinez
 WA6MWU - State OES Office
 WB6JGV - Crash Site, Morgan Territory Rd.
 K6POU - Crash Site
 KT6Y - Crash Site
 WA6HAM - Crash Site, John Muir Hosp. (Simulated)
 W6CPO - Crash Site
 KA6IVF - Crash Site
 KB6WU - Crash Site
 WD6GDG - Walnut Creek Police Dept.
 K6UGS - Red Cross (W6LW Memorial Sta)
 WB6AED - Delta Memorial Hosp., Antioch
 K6BNQ - Contra C. C. Hospital, Martinez
 KT6X - Mt. Diablo Hosp. Concord
 KD6VA - Kaiser Hosp. Walnut Creek
 W6KLM - Kaiser Hosp. Walnut Creek
 K6VT - Handheld/Battery Poop-out vech.
 WB6TEE - Personnel Recruitment/Assignment Net Control
 K06R - Personnel Recruitment/Assignment Net Control

Did you want to get on 220 but can't stand the cost? According to Nov QST page 76 by K9XI, you can buy rock bound, older 2 meter transvrs. and convert them easily for a song.

Repeater News as follows

The only news, feed back, was from a man known by our President who wants to know: why the equipment and parts pertaining to radio that he offered to the club for free, for the Auction wasn't picked up! And also wishes the Repeater Group would pay the bill owed to him! QSL?



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Photos will be taken again at the November meeting for the Photo Membership Directory. THIS IS THE LAST OPPORTUNITY TO HAVE YOUR PHOTO TAKEN IF IT WAS NOT TAKEN IN SEPTEMBER OR OCTOBER OF THIS YEAR.

Those of you who had your photos taken in September and October 1981, should stop by and make sure your photos are acceptable for publication.

I will start taking pictures about 1/2 hour before the meeting starts, so please help by being early.

Again, for those of you who cannot have your picture taken at a meeting, please mail us a black and white photo of yourself. This picture should be about 2½X3¼ inches or thereabouts. This picture should reach us no later than 1-15-82.

Please don't hesitate to contact me if I can be of any assistance.

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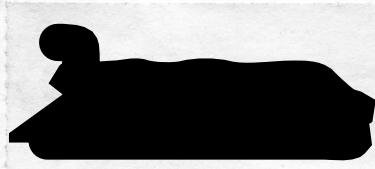
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